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SUBSTITUTE DETAILED DESCRIPTION AND ABSTRACT
UNDER 37 C.F.R. § 1.125

DRIVING APPARATUS FOR SPEED CHANGING AND STEERING OF A VEHICLE

BACKGROUND OF THE INVENTION

Continuation of U.S. Application No. 09/837,419, which is a continuation of
U.S. Application No. 09/700,147.

Field of the Invention

[0001] The present invention relates to a driving apparatus for speed changing and steering of a vehicle comprising a pair of hydrostatic transmissions (hereinafter referred to as HSTs) for driving a pair of left and right axles, wherein one of the pair is used for steering and the other is used for speed changing in advancing and reversing.

Background Art

[0002] U.S. Pat. No. 4,782,650, for example, describes a vehicle provided with a pair of HSTs, which are disposed in a lateral row and are connected with each other, and left and right axles projecting respectively from the pair of the HSTs laterally outwardly. Driving wheels are fixed respectively onto utmost ends of the axles. The left and right axles are driven respectively by changing operation of slanting angles of movable swash plates of the pair of HSTs.

[0003] The left and right axles are driven at the same speed by the pair of HSTs in case of straight advancing and reversing. They are driven at different speeds in case of steering.

[0004] However, because the above mentioned conventional vehicle uses a different HST to drive each axle, it can advance or reverse straight only when the output rotational speeds of the pair of the HSTs are equal. Thus, each of the HSTs needs to be adjusted with respect to its output speed for a long time while in operation. Additionally, accuracy is required to produce parts of the HSTs to minimize different outputs between them. For example, if there is a difference in volume between hydraulic pumps or motors of the pair of the HSTs, feelings